

Appl. No. 10/707,438
Amdt. dated July 12, 2006
Reply to Office action of May 16, 2006

REMARKS

Claims 1-9 and 13-24 are pending in this response. Claims 1 and 2 are amended and claims 10-12 are cancelled without prejudice. Claims 13-24 are newly added without entering any new matters.

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Claims 1, 3, 5, 7 and 8 are rejected under 35 USC 102(b) as being anticipated by Rotzoll (US Patent No. 5,737,035)

Applicant asserts that the amended claim 1 is patentable over Rotzoll because
10 Rotzoll at least fails to disclose the claimed notch filter comprising: a first passive circuit coupled between an input and an output of the notch filter; at least two frequency-dependent passive circuits coupled to the first passive circuit, the frequency-dependent passive circuits comprising at least a capacitor or an inductor; and a second passive circuit coupled to at least one of the frequency-dependent passive circuits,
15 wherein at least one of the frequency-dependent passive circuits or the second passive circuit couples to a constant reference voltage. Although Rotzoll discloses a first IF filter 509 for filtering out all frequency components at the image falling on 1160 MHz (Rotzoll: Fig. 5; Col. 10, lines 28-30), Rotzoll still fails to teach or suggest the first IF filter 509 comprising the limitations of the claimed notch filter. Therefore, claim 1 is allowable over Rotzoll. As
20 claims 3, 5, 7 and 8 are dependent upon claim 1, if claim 1 is found to be allowable, so too should the dependent claims.

Claims 13-24 are newly added without entering any new matters

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Some newly added claims are discussed below for clarification.

Claim 16 recites:

Claim 16 (New): The TV tuner of claim 1, further comprising a first local oscillator

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for providing a first local oscillating signal to the first mixer, **wherein the frequency range of the first local oscillating signal is narrower than the frequency range of the received RF signal.**

(Emphasis added)

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An embodiment of this claimed invention could be referred to fig. 6 of the specification. The oscillator 604 of fig. 6 corresponding to the first local oscillator of claim 16 provides an oscillating signal with a frequency range 635~1040MHz while the RF signal RF_IN of fig. 6 has a frequency range 50~860MHz (Specification: Fig. 6).
10 Since the frequency range 635~1040MHz of the oscillating signal is narrower than the frequency range 50~860MHz of the RF signal RF_IN, the limitations recited by the wherein clause of claim 16 are fully disclosed by the specification.

Claim 17 recites:

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Claim 17 (New): The TV tuner of claim 16, **wherein the frequency of the first local oscillating signal is lower than the frequency of the passed intermediate frequency signal.**

(Emphasis added)

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An embodiment of this invention could be referred to fig. 6 of the specification. The oscillating signal provided by the oscillator 604 has a frequency within the range 635~1040MHz while the passed intermediate frequency signal has a frequency 1220MHz (Specification: Fig. 6). Since the highest frequency 1040MHz of the oscillating signal is lower than the frequency 1220MHz of the passed intermediate
25 frequency signal in this embodiment, the limitations recited by the wherein clause of claim 17 are actually revealed by the specification.

Claim 18 recites:

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Claim 18 (New): The TV tuner of claim 16, wherein the frequency range of the received RF signal is a multiple of the frequency range of the first local oscillating signal.

(Emphasis added)

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An embodiment of this invention could be referred to fig. 6 of the specification. The frequency range 810MHz (50~860MHz) of the received RF signal RF_IN is a multiple of the frequency range 405MHz (635~1040MHz) of the oscillating signal provided by the oscillator 604 (Specification: Fig. 6). Hence, the limitations recited by the wherein clause of claim 18 are fully supported by the specification.

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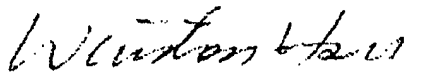
The discussions of claims 19 and 20 are similar to the discussions of claims 16 and 18.

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Consideration of pending claims 1-9 and 13-24 is respectfully requested.

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Sincerely yours,



Date: July 12, 2006

Winston Hsu, Patent Agent No. 41,526

5 P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

Facsimile: 806-498-6673

e-mail : winstonhsu@naipo.com

- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)